**The Geometry of Lines: Throwbacks!** Name:

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**Set #1: Slope**

#1 – 8: Find the slope of each line.



9. In each part, plot the points and then find the slope of the line that connects them.

a) (-4, 2), (2, -3) b) (0, 5), (-4, -3)

 

10. Find the slope of the line that passes through:

a) (-12, -5), (0, -8) b) (-18, -20), (-18, -15) c) (8, 10), (-7, 14)

11. Write the slope of each line. (Bonus: The y-intercept, too!)

a) y = 9x + 7 \_\_\_\_\_\_\_\_\_\_\_

b) 7x – 10 = y \_\_\_\_\_\_\_\_\_\_\_

c) y = 6 – 4x \_\_\_\_\_\_\_\_\_\_\_

d) y = -11 + x \_\_\_\_\_\_\_\_\_\_\_

e) y = 9 \_\_\_\_\_\_\_\_\_\_\_

**Set #2: Graphing Lines**

Draw the graph of each line.

1. y = 2x – 1

 

2. y = -3x + 4

 

**Set #3: Re-Writing/Re-Arranging**

Put each equation into “y = “ form. Then, state the slope and y-intercept of the line.

1. 50x – 10y = 30 2. –8x – 4y = 16

3. x + y = 16 4. 7y – 21x = -63

5. – y + 9x = 110 6. 2x – 4y + 8 = 0

7. –6y – 36x + 10 = 22 8. 2(3x – 2y) + 10 = 30

**Set #4: On the Line…?**

1. Is (4, 2) on the line y = x + 8? 2. Is (-3, -2) on the line y = 2x – 11?

3. Is (-1, 4) on the line y = -3x – 1? 4. Is (10, 12) on the line y = – x + 22?

5. Is (6, 8) on the line 2x – 3y = 15? 6. Is (-2, 7) on the line 3x + 8y – 50 = 0?

**Set #5: Writing Equations**

Write the equation of each line in “y = “ form.

1. slope = 10, y-intercept (0, 4) 2. slope = -6, y-intercept (0, 9)

3. slope = 9/5, y-intercept (0, -12) 4. slope = -15/87, y-intercept (0, 0)

5. line passes through (3, 1) and (-2, 6) 6. line passes through (3, 1) and (-2, 6)

7. line passes through (-4, 6) and (1, -4) 8. line passes through (1, 3) and (0, -3)

9. line passes through (-2, 7) and (0, 1) 10. line passes through (8, 8) and (7, 7)

**Set #6: Writing Equations…Again**

Write the equation of each line. Note: these are the same lines from set #1.

You will have to do some work to get the y-intercept of some of these lines.

